PROJET-JAVA

Java project by Peter and Younes

Younes was charged with the design of the graphical user interface and Peter handled the synchronization logic in local and network, and the UML.

Project which consists in synchronizing two folders in Java, whether it's in local or in network, without the help of extern API.

The synchronization is possible on a single computer in local, or on network in local, using 2 computers. The synchronization works both ways: if the folder A is modified, then the folder B is also modified, and the way around.

To send data through sockets, we first serialize the data in a String buffer, then the receiver deserialize the data, using the separators we have chosen "||". The receiver receives in order the type of the file : 1 if it's a folder, 0 if it's a file, then the relative path of the file, and finally the content of the file, if it's one.

There is a lot of recursion in the project, as we can't directly send a folder with its file, or copy a whole folder. To do so, we first create the folder, then call the method recursively, to ensure that every subfolders are sent.

Execution : java -cp bin sync.Gui

To make it work in local, on a single computer, the user must choose the source folder he wants to synchronize, and the destination folder, where it needs to be synchronized, then press the Synchronize button.

To make it work in network, the server must choose a folder where he will receive the files, and choose a port, then launch the server. Only then, the client can choose the folder he wishes to send, choose the same port as the server, and connect to it.

The server must be started first, before the client can connect to it, otherwise there will be an error.